

Health

Healthy bones for a healthy life

Our bones play a critical role in our overall health. Keep them strong and healthy and you increase the likelihood of a long, active and independent life. While our age and certain risk factors have a lot to do with the health of our bones there are plenty of things we can all do regardless of age to improve things.

Bones don't just support our bodies, although that's a pretty important job! They also protect our organs, store minerals and contain the marrow where blood cells are made. Not looking after your bones increases your risk of breaks and fractures, which can affect the quality of your life and may even be life threatening. Peter Bodin, Physiotherapist at Castlemaine Health, says that for around 50 per cent of people who fracture a hip, the injury is fatal.

"A hip fracture, which is a more common injury for older people, sets off a cascade of events so serious that 50 per cent of the people who suffer this injury die within 12 months," he says.

"Osteoporosis is a factor for the majority of people who suffer this injury and it has a significant impact on their ability to recover. By improving our bone health we hopefully avoid osteoporosis and reduce the likelihood of these kinds of injuries occurring."

Osteoporosis, a condition that affects over 1 million people in Australia, occurs

when bones lose minerals more quickly than the body can replace them, causing a loss of bone thickness or density. This makes them brittle and more likely to break.

Osteoporosis affects women and men but women are at a greater risk because of the rapid decline in oestrogen levels during menopause. The average woman loses around 10 per cent of bones mass in the five years after menopause. Certain lifestyle factors, conditions and some medications may also increase the risk. For example if you smoke, have a family history of osteoporosis, take corticosteroid medications or if you have a thin boned build you may be more likely to develop the condition.

"We generally reach peak bone density in our late 20s," says Peter.

"Then there's a slow decline in our 30s and 40s of roughly one per cent a year, after which time the rate of bone decline increases."

While you can't increase bone density after you reach peak mass, you can stop bone loss. One of the best ways to do this is to exercise and weight-bearing exercise is the best.

"We don't quite know why bone cells respond to compressive forces, but they do and it makes them stronger," says Peter.

"Bone cells align themselves in response to the stress they're put under. So when you put pressure through the length of a bone, cells line up to resist the compressive force."

Exercise like bushwalking, playing tennis or bowls, jogging and lifting weights are all great choices.

"The added benefit of exercise is that also increases muscle mass, improving strength and balance, which will also help prevent falls," says Peter.

The other key to improving bone health can be found in our food. Calcium is essential for building and maintaining bone. Almost 99 per cent of the body's calcium is found



in the bones. It's what gives them their strength and structure. The best source of calcium is dairy.

"Making sure our bones reach maximum density during childhood will help them stay strong as we age," says Castlemaine Health Dietitian Brianna Hillard.

"But we need to keep getting enough calcium as we age."

The Victorian Government's eatforhealth.gov.au recommends we eat two - three serves of dairy daily, however the minimum will vary according to age, sex and life stage.

Milk, cheese and yoghurt provide calcium in a readily absorbable and convenient form but for people who follow a dairy or milk free diet because of allergies, intolerances or personal choice there are other options.

"If you're not able to eat dairy it's impor-

tant to make sure you're still getting enough calcium," says Brianna.

"There are plenty of fortified foods available and other sources of calcium including almonds and oily fish."

See the table below for some guidelines.

One of the other benefits of eating dairy is that it's full of protein which is good for building muscles. And if your muscles are strong you're less likely to have a fall.

"The other essential for bone health is vitamin D," says Brianna.

"Calcium needs vitamin D to be absorbed and the best source is sunshine."

"Just 10 to 15 minutes a day out in the sun on your face, hands and arms should be enough for most adults to help keep bones nice and strong," she says.

If you or someone you know is concerned about bone health start by speaking with your GP.

Q&A BONE HEALTH

Castlemaine Health dietitian
Brianna Hillard answers
your questions

Q: How will I know my bones are weak?

A: Only a fracture or an incidental finding on an X-ray will reveal bone strength. There are some signs which can indicate osteoporosis like a rapid loss of height or a stooped posture, but the first sign is generally a break that occurs with minimal trauma. A DEXA scan is the best way to test for bone strength this can be requested by a GP.

Q: Does osteoporosis hurt?

A: No. Most of the time osteoporosis doesn't cause any symptoms so there's no pain unless you fracture something.

Q: Does my daily cappuccino count as a serve of calcium?

A: Unfortunately no, caffeine, alcohol and salt all affect the absorption of calcium and can actually encourage excretion of calcium from the body. It's much better to consume your dairy in other ways if you want to get the benefits.

Standard serves of dairy*

A standard serve is 500- 600J

- 1 cup (250ml) fresh, UHT long life, reconstituted powdered milk or buttermilk
 - ½ cup (120ml) evaporated milk
- 2 slices (40g) or 4 x 3 x 2cm cube (40g) of hard cheese, such as cheddar
 - ½ cup (120g) ricotta cheese
 - ¾ cup (200g) yoghurt
- 1 cup (250ml) soy, rice or other cereal drink with at least 100mg of added calcium per 100ml

*Choose mostly reduced fat

Alternatives with about the same amount of calcium per serve

- 100g almonds with skin
- 60g sardines, canned in water
- ½ cup (100g) canned pink salmon with bones
- 100g firm tofu (check the label as calcium levels vary)

Source: eatforhealth.gov.au



Castlemaine Health Physiotherapist Peter Bodin and dietitian Brianna Hillard.

If you would like more information about the programs and services at Castlemaine Health please contact:

Intake Office
Community Rehabilitation Centre (CRC)
Castlemaine Health
(P) 5471 1575
(F) 5471 1674
(E) intake@castlemainehealth.org.au

Send us your questions or tips about health and wellbeing

Write to us to have your question or tip featured here.

Mail:

29 Templeton Street, Castlemaine Vic 3450.

Email:

dthomas@midnews.com.au

142 Cornish Street
Castlemaine Vic 3450
(P) 03 5471 1555

f /castlemainehealth
www.castlemainehealth.org.au



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